

(No Model.)

W. H. RANDALL.

DRAFT EQUALIZER.

No. 354,225.

Patented Dec. 14, 1886.

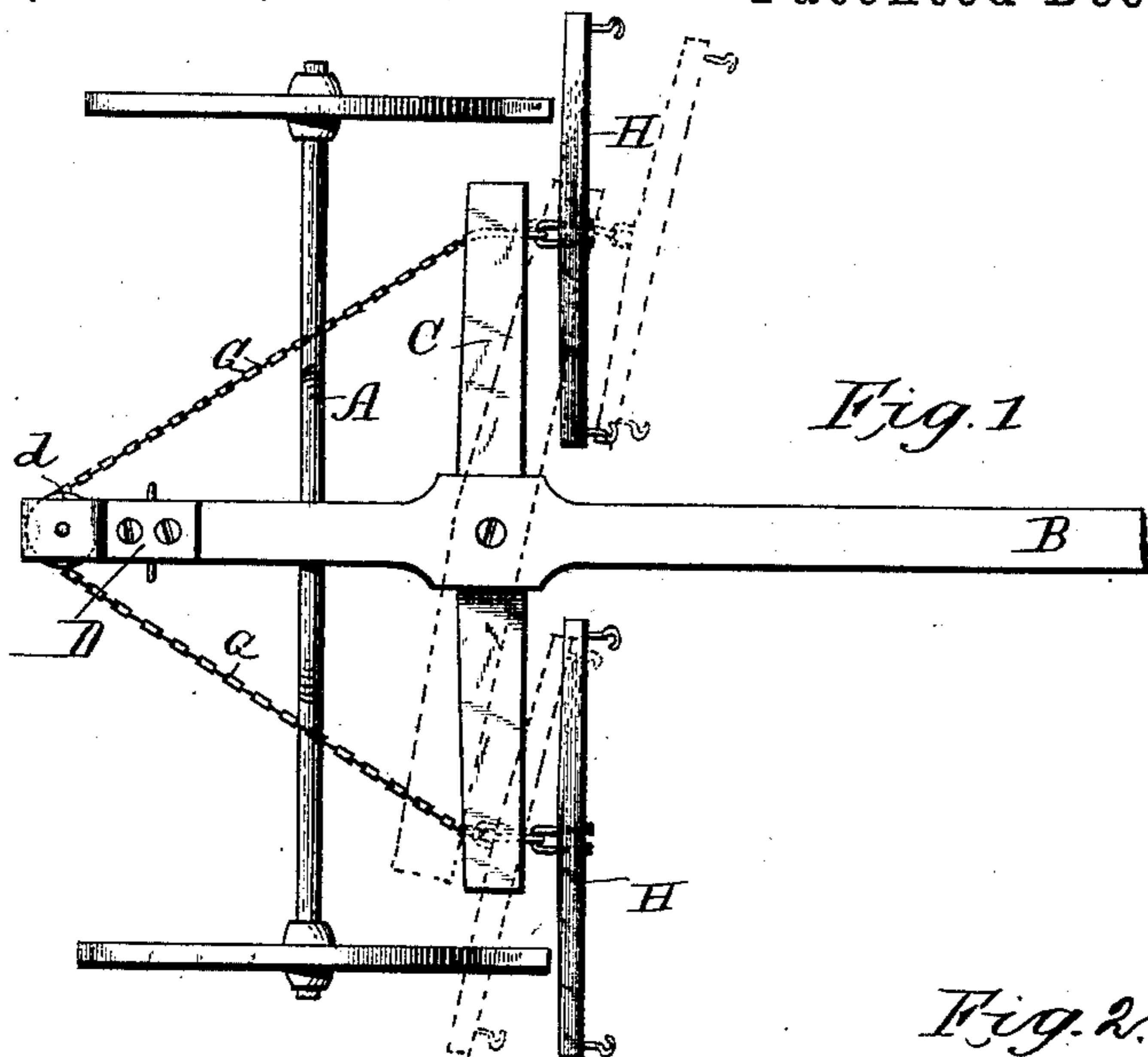


Fig. 1

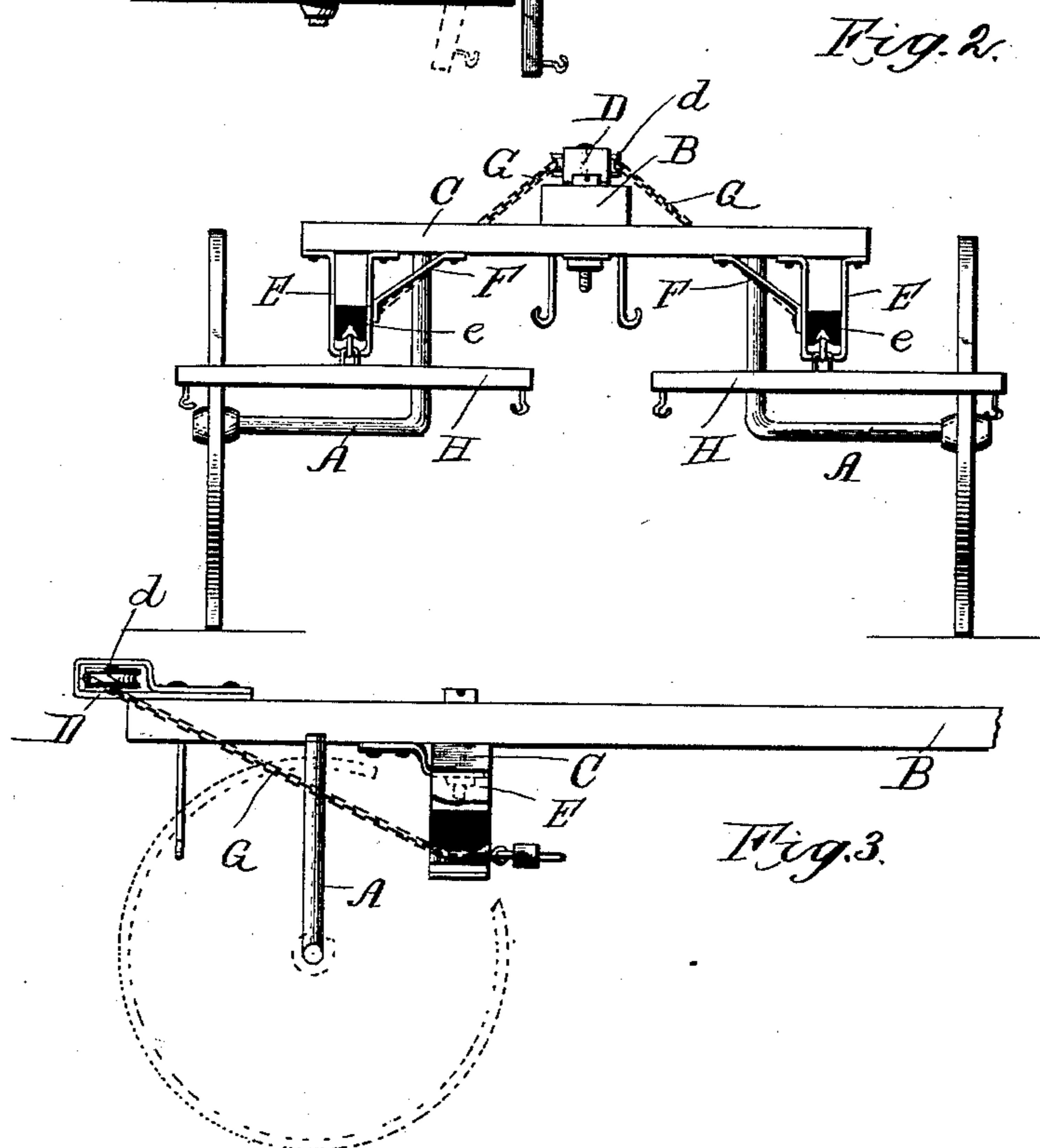


Fig. 2

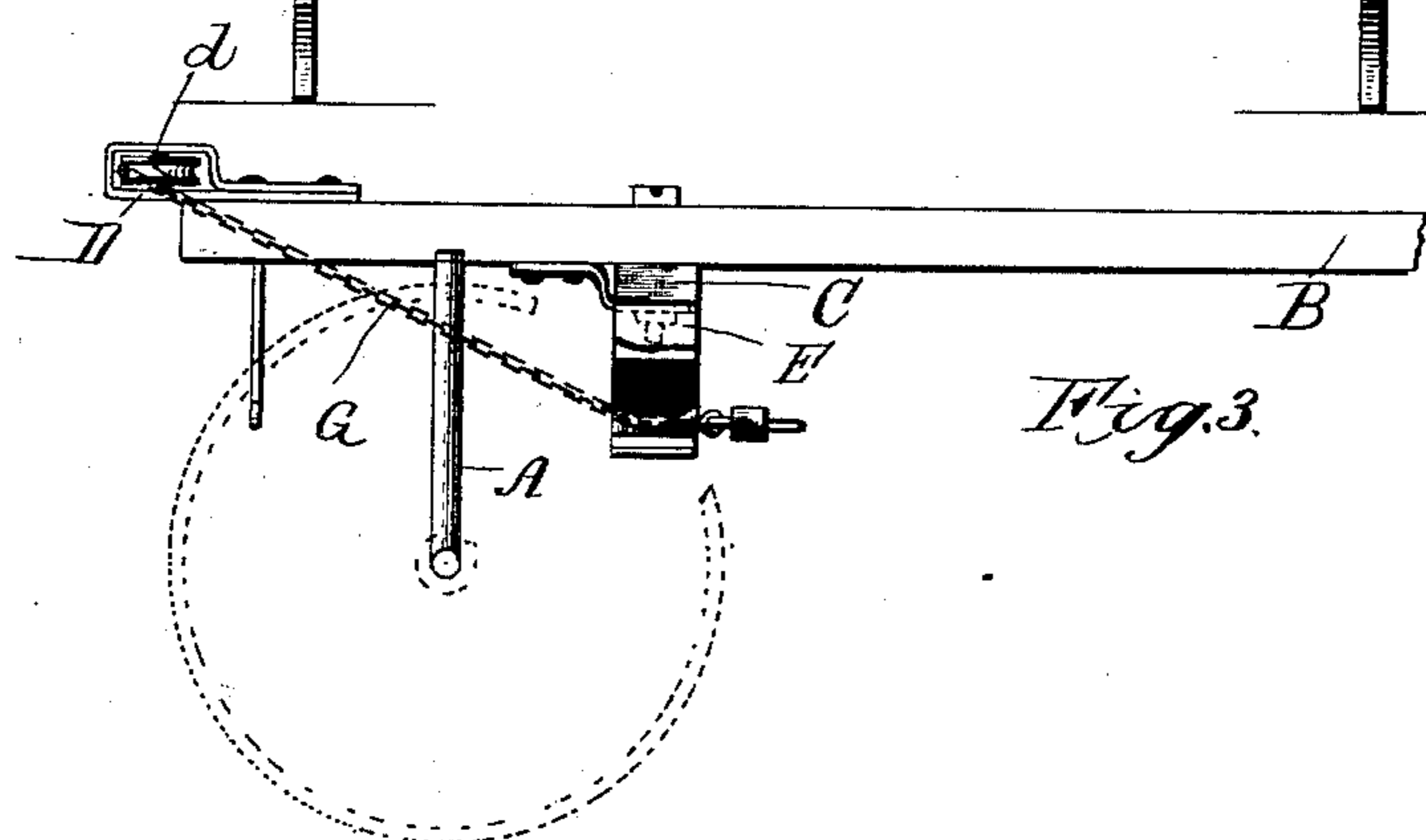


Fig. 3

Witnesses;
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ATTY'S

UNITED STATES PATENT OFFICE.

WILLIAM H. RANDALL, OF FREDERICKSVILLE, ILLINOIS, ASSIGNOR TO
THOMAS W. HERRON, OF SAME PLACE.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 354,225, dated December 14, 1886.

Application filed September 2, 1886. Serial No. 212,517. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. RANDALL, a citizen of the United States, residing at Fredericksville, in the county of Schuyler and State of Illinois, have invented certain new and useful Improvements in Draft-Equalizers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to draft-equalizers; and it consists in the novel features more fully hereinafter set forth, claimed, and shown in the accompanying drawings, in which—

Figure 1 is a plan view of a part of a frame provided with my equalizer. Fig. 2 is a front view, and Fig. 3 is a side view.

A represents the ordinary arched axle as commonly seen in gang cultivators and plows, and B is the tongue, to which the double-tree C is pivotally secured. The rear end of the tongue has a keeper, D, secured thereto preferably on its upper side, between which a pulley, *d*, is journaled. U-shaped brackets E depend from the opposite ends of the double-tree, and are staid on their inner sides by braces F. Blocks *e*, secured near the lower ends of the brackets, between their vertical limbs, and at a distance from the closed ends, are grooved on their lower sides to receive a chain, G, which is adapted to be seated in said grooves near its ends, which ends are provided with single-trees H. The middle portion of the chain passes over the pulley *d* on the rear end of the tongue.

The grooved blocks *e* are preferably of some elastic or soft material—such as rubber, leather, papier-maché, &c.—so that in the operation of the device the chains will bear with sufficient friction thereon to cause a swinging movement of the double-tree.

The pulley *d* is on a higher level than the blocks *e*. By this arrangement the draft exerts an upward force on the tongue and relieves the animals' necks of the weight of the tongue while working.

By my device, which is simple, the draft is perfectly equalized, and no side draft is possible.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the tongue, the pulley located at the rear end thereof, the double-tree pivoted to the tongue in advance of the pulley, U-shaped brackets depending from each end of the double-tree, the braces interposed between the inner sides of the brackets and the double-tree, the yielding guide-blocks secured within the lower ends of the brackets at a distance from their closed ends, and having their lower ends grooved, and the chain passed loosely around said pulley and through the brackets, between their closed end and the guide-blocks, and having single-trees attached to their free ends, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. ^{his} × RANDALL.
mark

Witnesses:

A. B. LAWLER,
P. E. MANN.